**Homework 66H** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Scale Factors & Unit Conversions** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle!**

**INCLUDE UNITS IN ALL FINAL ANSWERS.**

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| 1) A model airplane is 15 centimeters long. In actuality, the plane is 200 meters long.   1. What is the scale factor of the model to the actual airplane? 2. What is the scale factor of the actual airplane to the model? | 2) In a photograph, Dennis is 3.5 inches tall, and his sister Emily is 2.5 inches tall. Dan’s actual height is 90 inches. What is Emily’s actual height? |
| 3) In a photograph, Dennis is 3.5 inches tall, and his sister Emily is 2.5 inches tall. Dan’s actual height is 90 inches. What is Emily’s actual height? | 4) The floor plan of a house is drawn to scale such that .75 inches is equal to 3 feet. The bathroom on this floor plan is 5.25 inches long and 10 inches wide. What is the actual size of the bathroom? |
| 5) The Jordan family was planning on taking a road trip from Chicago to New York City, which is 750 miles. Instead, they decided to go to Minneapolis, MN, which is 540 miles from Chicago. On a certain map, each inch equals 70 miles.   1. In miles, how much further is the trip to New York than Minneapolis for the Jordan’s? 2. On that map, how much longer is the trip to New York than Minneapolis? | 6) Jessica is going to cover her patio with bricks and she plans to put the bricks next to each other so there is no space in between them. The bricks are rectangular prisms that measure 1 inch tall by 4 inches wide by 5 inches long. If Jessica’s patio is a rectangle that measures 6 feet by 5 feet, what is the minimum number of bricks that she will need to fully cover her porch? |
| 7) A balcony is 5 feet by 6 feet. What is the area of the balcony in inches? | 8) On a map, 3 centimeters is equal to 300 miles. If City A is 750 miles away from City B, how many inches apart will they be on the map? |